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(54) Improved interface for liquid chromatograph-mass spectrometer.

(57) A moving belt interface for real-time, high-performance liquid chromatograph (HPLC)/mass spectrometer (MS) analysis which strips away the HPLC solvent as it emerges from the end of the HPLC column and leaves a residue suitable for mass-spectral analysis. The interface includes a portable, stand-alone apparatus having a plural stage vacuum station, a continuous ribbon or belt, a drive train magnetically coupled to an external drive motor, a calibrated HPLC delivery system, a heated probe tip and means located adjacent the probe tip for direct ionization of the residue on the belt. The interface is also capable of being readily adapted to fit any mass spectrometer.

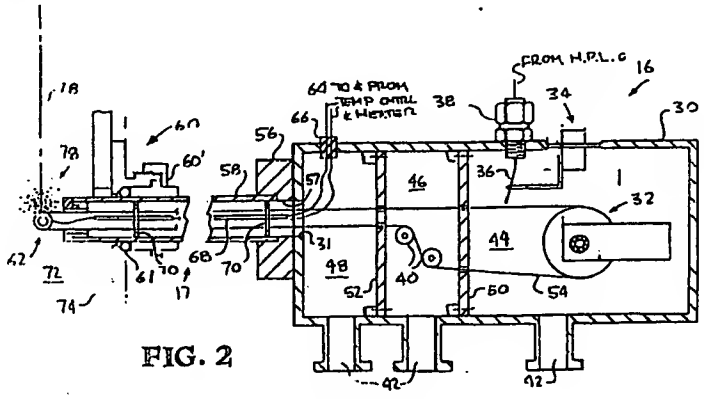

FIG. 2

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EUROPEAN SEARCH REPORT

Application Number

EP 87 11 2952

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
Y,D	US-A-4 055 987 (W. H. MCFADDEN) * figure 2 *	1-3,10-12,17-20	H 01 J 49/04 G 01 N 30/72
Y	ANALYTICAL CHEMISTRY vol. 57, no. 6, May 1985, pages 985-991, Washington, USA; J. G. STROH et al.: "On-Line Liquid Chromatography/Fast Atom Bombardment Mass Spectrometry" * figure 2 *	1-3,10-12,17-20	
Y	EP-A-0 175 467 (NICOLET INSTRUMENT CORPORATION) * claims 5,8 *	2,3,10-12,17-20	
A,D	ANALYTICAL CHEMISTRY vol. 57, no. 8, July 1985, pages 1783-1786, Washington, USA; S. J. STOUT et al.: "Simplified Moving-Belt Interface for Liquid Chromatography/Mass Spectrometry" * page 1783, right column, line 37 *	4	TECHNICAL FIELDS SEARCHED (Int. Cl.4)
A,D	ANALYTICAL CHEMISTRY vol. 53, no. 11, September 1981, pages 1603-1611, Washington, USA; R. D. SMITH et al.: "Liquid Chromatography-Mass Spectrometry with Electron Impact and Fast Ion Bombardment with a Ribbon Storage Interface" * figure 1 *	11	G 01 N 30/00 H 01 J 49/00
A	TRENS IN ANALYTICAL CHEMISTRY vol. 1, no. 7, March 1982, pages 154-158, Cambridge, GB; P. J. ARPINO: "On-line liquid chromatography/mass spectrometry? An odd couple" * figure 2 *	1,20	

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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
BERLIN	25-07-1989	BRISON O.P.

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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Application Number

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DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
E	US-A-4 740 298 (B. D. ANDRESEN et al.) * figure 1 * -----	1,20	

TECHNICAL FIELDS SEARCHED (Int. Cl.4)

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